

## **Joint Ventures in Private Forestry in Ireland**

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A study was conducted with the objective of obtaining a profile of farmers who have participated in the Farm Partnership Scheme in Ireland. This scheme is a joint venture between Coillte (The Irish Forestry Board) and farmers. Under the terms of the scheme, Coillte is responsible for the establishment, management and harvesting of the forest plantation on the farmer's land. The farmer retains ownership of the land, receives premium payments and shares in the harvesting profits. Fifty farmers who joined the Farm Partnership Scheme between 1993-1997 were interviewed in 1999 and a detailed questionnaire was completed. Survey results indicate that the typical farm partner was male, married and aged 50 years or older. Over half of those surveyed had an off-farm job. The most popular reason for farmers opting to participate in the Farm Partnership Scheme was that they did not have sufficient time to undertake the establishment and management of a forest plantation themselves. The average size of forest established under the scheme was 23.7 ha, with Sitka spruce the most popular species planted. The average annual payment under the scheme was €8077. For 46% of those surveyed, the returns from the Farm Partnership Scheme comprised all of their farm income.

## **INTRODUCTION**

Ireland is the least forested country in the European Union (EU) with only 9% of its land area (i.e. 649,813 ha) under forest. The forest estate is dominated by exotic species, especially Sitka spruce (*Picea sitchensis* (Bong.) Carr.) which achieves a mean annual increment of 16 m<sup>3</sup>/ha. The current ratio of private forest ownership to State ownership is much lower than the average in the EU. At present, only 29% of the forest estate is privately owned while the equivalent figure for the EU is 60%. However, the proportion of private forest is rapidly increasing as afforestation in Ireland is currently dominated by private landowners. This change has come about as a result of generous grant-aid schemes available to landowners, especially farmers, who wish to afforest. One of the schemes that farmers can participate in is the Farm Partnership Scheme, a joint venture scheme between farmers and Coillte (The Irish Forestry Board which manages State forests in Ireland). In an effort to

find out more about those involved in the Farm Partnership Scheme, a study commenced in 1998, the objectives of which were:

1. to develop a profile of Coillte's farm partners and use this information to identify and target future participants; and
2. to determine the contribution to farm incomes of payments from the Farm Partnership Scheme.

This paper concentrates on survey findings relating to Objective 1 while the results of Objective 2 have been dealt with in a previous publication (Kavanagh and Ni Dhubhain 2001).

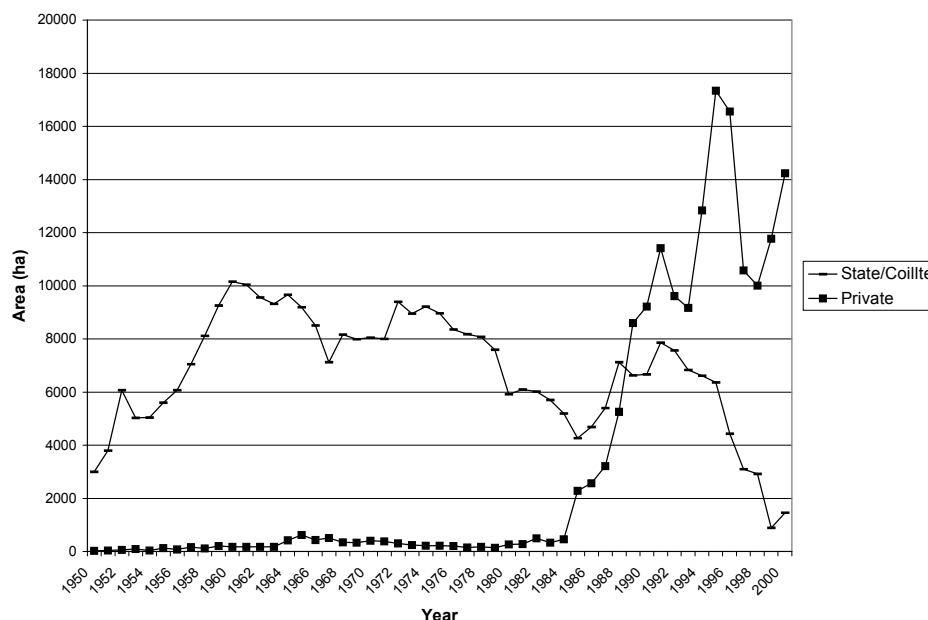
## THE HISTORY OF FARM FORESTRY IN IRELAND

There is no tradition of private forestry, especially farm forestry, in Ireland. There are a number of historical and cultural reasons for this. Up until the end of the 19<sup>th</sup> century, land in Ireland was owned by a small number of landlords with most of the population subsisting as tenant farmers. Following centuries of woodland clearance, these landlords began to plant trees for recreational purposes during the period from 1700 to 1880. The passing of the *Land Acts* at the end of the 19<sup>th</sup> century resulted in the transfer of ownership of land from the landlord to the tenant. Before this transfer occurred the tendency among landlords was to clear woodlands. Much of the woodland area that remained was quickly felled by the tenant farmers to provide much needed capital. Thus at the beginning of the 20<sup>th</sup> century only 1% of the land area of Ireland was under forest (O'Carroll 1984).

Following Independence in 1922, the new Irish Government set about increasing the area of State forest. The stimuli for encouraging State afforestation were strategic concerns regarding timber supply in the wake of the First World War as well as the need to provide employment in rural areas where other employment opportunities were limited. While grants were available for afforestation by private landowners from 1930, uptake of these was limited. Those that did avail of them were, in most cases, the owners of some of the remaining large estates.

The entry of Ireland into the European Union in 1973 was to have a major impact on afforestation trends in Ireland. In 1980, the first round of EU funding for afforestation, known as the Western Package Grant Scheme, was introduced. The value of the grants for forest establishment that were available under this scheme was substantially greater than what had been available previously. The scheme specifically targeted farmers in the west of Ireland and it was seen as a means of providing farmers in these areas with the opportunity to generate additional income through their involvement in an alternative land-use. However, uptake by farmers of these grants was initially limited. Farmers in the area targeted by the scheme had no tradition of farm forestry, and many were old, single and not interested in changing from traditional farming practices to an unfamiliar land-use which would not provide them with an income for many years (Nugent 1985). However, the introduction of another scheme in 1987, which provided annual payments for a 15-year period to compensate for income foregone as a result of afforesting land, removed a major barrier to afforestation. As is clear from Figure 1, afforestation by

private landowners increased dramatically in the wake of the introduction of this scheme.



**Figure 1.** Annual afforestation rates in Ireland (1950-2001)

Continued increases in the level of the establishment grant coupled with the availability of annual premium payments for an extended period of 20 years, acted as considerable incentives for private landowners, especially farmers, to afforest. In 1995, annual afforestation by private landowners peaked when over 17,000 ha were planted. Since 1996, this figure has never been reached again as farmers opted to stay in agriculture due to additional agri-environmental subsidies introduced as a result of reforms of the Common Agricultural Policy in 1993. Currently, private afforestation amounts to 14,000 ha per annum.

### THE FARM PARTNERSHIP SCHEME IN IRELAND

While private afforestation in Ireland has increased in recent years, planting by Coillte (the semi-state company which took over the management of State forests in 1989) has declined. This decline has occurred despite the fact the Coillte could also avail of grant-aid and premium payments although these were lower in value than those available to farmers. The primary reason for the decline in afforestation by Coillte has been the difficulty the company has experienced in purchasing land. Land prices increased substantially between 1991 and 1998 making it difficult for Coillte to acquire land for afforestation at economic prices (Kavanagh 1999). This difficulty was a contributory factor to the introduction in 1992 of the Farm Partnership Scheme. The decision by the EU in 1996 to stop the payment of

premiums to Coillte (the payment of establishment grants to the company was halted in 1999) increased the difficulty it had to acquire land at economic prices. Key features of this scheme include (Dillon 2002):

- *Ownership of the land*: Under the scheme the farmer retains ownership of the land. Coillte enters into a legally binding lease arrangement with the farmer for the duration of the rotation.
- *Establishment grant*: Coillte retains the establishment grant available from the Forest Service to cover the costs of developing land for forestry, purchasing plants and establishing the forest plantation.
- *Advance payment*: The farmer receives an up-front payment of up to €635/ha. This payment is an advance from the partner's share of the clearfell profits and is deducted from the realised clearfell profits at the end of the rotation. The actual amount paid is based on expected clearfell profits.
- *Forest premium*: The farmer receives an annual premium payment from the Forest Service for 20 years. The level of payment is related to the species planted and the scale of the plantation, with broadleaves and larger plantations attracting the higher premiums.
- *Thinning annuity*: The farmer receives 80% of the thinning profits paid in the form of an annuity from year 21 to age of clearfell. The option is available to the farmer to increase the annuity level by bringing forward up to 20% of the clearfell revenue.
- *Clearfell profit*: The farmer receives 55% of the clearfell profit unless they have opted to bring forward some of the clearfell revenue (see above).
- *The partner's responsibilities*: The farmer is responsible for the security and maintenance of the plantation. A condition of the partnership agreement is that a management meeting is held with the partner at least once a year for the purpose of discussing the continuing management of the stand and agreeing the work plan for the following period. The scheme also allows the partner to undertake some of the on-site work and payment is made at the normal rate.
- *Coillte's responsibilities*: Coillte is responsible for the establishment and subsequent management of the forest crop. It is also responsible for marketing the timber.

Under current Irish tax legislation, the profits accruing to an individual from the sale of timber are exempt from income tax. This also applies to the premium payments. In addition, as Coillte has Forest Stewardship Council Certification, forests managed under the Farm Partnership Scheme will also have this certification. The smallest area that Coillte will consider in the scheme is 20 ha (8 ha where the area is contiguous to an existing Coillte plantation).

In the first five years of the Scheme's operation (1993-1997), afforestation undertaken averaged about 15% of Coillte's total annual afforestation or just over 4% of total area afforested by farmers during the same period. More recently the level of participation in the scheme has increased and Coillte has afforested over 10,000 ha in over 500 partnerships since 1992. Afforestation under the partnership scheme accounted for all afforestation (i.e. 1461 ha) by Coillte in 2001.

## **SAMPLE SELECTION AND SURVEY METHOD**

A survey of 50 farmers who had joined the Farm Partnership Scheme between 1993 and 1997 was undertaken in 1998. Over half of these farmers were located in five counties – namely Galway, Waterford, Kilkenny, Longford and Westmeath – with the remainder scattered throughout 20 of the remaining 21 counties of Ireland. Prior to sample selection, the population was stratified into four regions. The population in region 1 consisted of farm partners in Co. Galway (hereafter referred to as the West), region 2 of those in Co. Waterford and Co. Kilkenny (the South-east), and region 3 of farm partners in Co. Longford and Co. Westmeath (the Midlands). Region 4 included all other farm partners. The population was stratified on this basis because farming activity varies considerably between these four regions. However, because the population in region 4 was highly dispersed and thus costly to interview, it was excluded from the final sample. Names and addresses of all farm partners in the regions retained were obtained from Coillte. The numbers of farm partners in regions 1, 2 and 3 were 48, 16, and 21 respectively. A random sample of 54 partners was drawn from the lists of farm partners in the three regions. These partners were then contacted by mail, with 22, 14, and 14 respectively agreeing to participate in the survey. The sample of 50 partners was visited and personal interviews undertaken. The questionnaire comprised 64 questions, relating to the farm forest, the farm partner and the reasons why the farm partners had participated in the Farm Partnership Scheme.

## **KEY FINDINGS OF THE SURVEY**

The key findings of the survey include a description of the typical farm forest established under the Farm Partnership Scheme as well as a profile of the farm partner and their farm enterprise. The reasons why farm partners opted to afforest land are also outlined.

### **The Farm Forest**

The predominant species planted was Sitka spruce, with few forests (3% in area) having broadleaves or broadleaf mixtures. Plantation area was greater than 20 ha in 54% of cases (Table 1). In the South-east, 71% of farmers afforested in excess of 20 ha, while the corresponding figure for the West was only 41%.

The afforested land in the West comprised, most commonly, wet mineral soils, while in the two other regions dry mineral soils were afforested. Survey responses reflect the predominant soil types in the three regions. The land-use prior to afforestation on half of the sites was rough grazing, while on much of the remainder (44%) it had been temporary pasture. Only 6% of partners had afforested land used for growing crops. Almost all the land afforested (91%) was classified as enclosed. This is a definition used as an indicator of land quality for grant-aid purposes. Enclosed land is land which was improved for agricultural use by cultivation or manuring or both, and which is completely surrounded by man-made boundaries (DMNR 2000).

**Table 1.** Percentage distribution of woodland units by size and region (n = 50)

Area planted (ha)	West (%)	South-east (%)	Midlands (%)	All (%)
<10	14	7	7	10
10<15	27	14	29	24
15<20	18	7	7	12
≥20	41	71	57	54
Average area planted (ha)	22.4	27.5	21.2	23.7

### Management of Joint-venture Forests

Coillte are responsible for the day-to-day decisions regarding the management of the partnership forests while farmers are responsible for plantation maintenance and security. The satisfaction rating with the partnership arrangement was high with only a small percentage (6%) of participants not satisfied with the establishment and management of their plantation.

The management of the forest is usually agreed at the annual management meeting and partners are required to be present at this meeting under the lease agreement. This meeting is also mandatory in order to satisfy the tax requirements of the lease arrangement. The level of contact between Coillte and the farm partners exceeded this minimum in 82% of cases (Table 2).

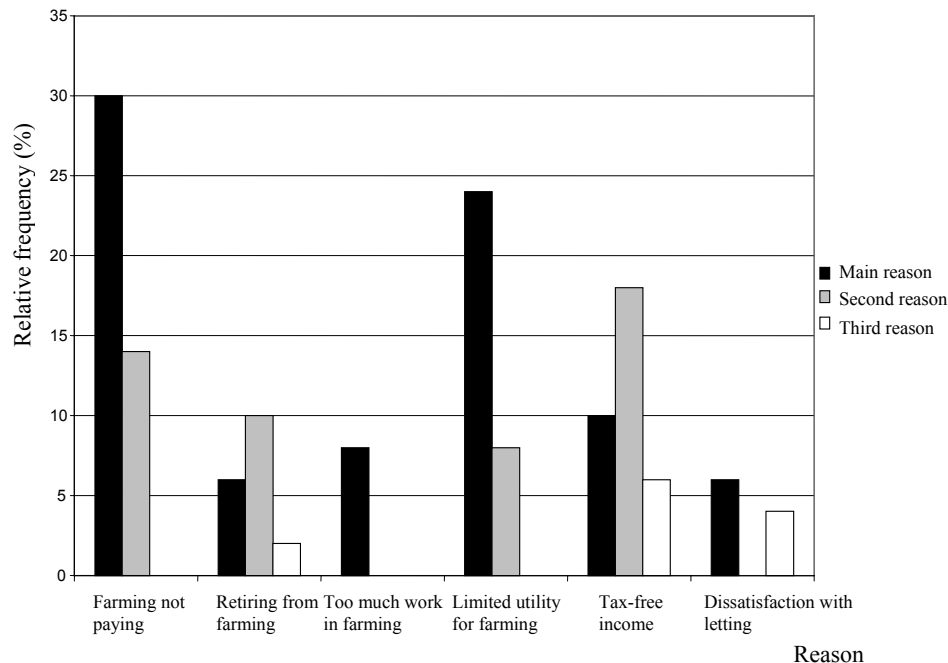
**Table 2.** Frequency of contact by region

Contact frequency (per year)	West (%)	South-east (%)	Midlands (%)	All (%)
Once	5	21	36	18
Twice	50	78	36	54
3 or more times	45	0	28	28

### Reasons for Afforestation and Involvement in the Partnership

Respondents were asked to indicate the main reasons why they had planted trees. Many had more than one reason for planting (Figure 2). Thirty percent of respondents indicated that their primary reason was that farming was ‘not paying’ and that forestry was a better prospect. In 24% of cases, the limited utility of the land was cited as the main reason for planting. The fact that returns from forestry are non-taxable was cited as a factor in the decision to afforest in 32% of cases, although only in 10 cases was it the main reason. Some of the farmers had previously rented out the land they had afforested. Dissatisfaction with this letting arrangement was stated as the main reason for opting for the partnership scheme in a small number of cases. All farmer partners surveyed were satisfied with their decision to afforest. There was no difference between regions in terms of the reasons partners gave for opting to afforest land. Similarly, farm size did not appear to influence the reasons partners gave. Instead, the responses given by partners varied according to the type of enterprise on the farm. Those relying on mixed livestock systems most often gave ‘Farming not paying’ as their main reason for afforestation,

while the limited utility of the land was most often mentioned by those with dairy farms.



**Figure 2.** Reasons given by farm partners for afforesting their land (n = 50)

The majority of farmers in Ireland who afforest land employ forest management companies to undertake the forest establishment (Wall and Ni Dhubhain 1998). While Coillte undertake the forest establishment under the Farm Partnership Scheme, only a small number of farmers who have afforested since 1992 have participated in this scheme (Coillte 2000). It was therefore of key interest to determine the reasons why survey respondents had opted to enter into a partnership agreement with Coillte. Almost half of the respondents indicated that they had insufficient expertise to afforest on their own and this prompted them to opt for a partnership. Lack of time to undertake the forestry work was given by 46% of respondents as one of their reasons for entering into a partnership. Thirty-two percent considered the partnership arrangement to be the best financial option available. The long-term security associated with the involvement of a semi-state company was cited in only 20% of cases.

#### **The Farmer Partner and their Enterprise**

Most farm partners surveyed were male, married and aged 50 years or older. Few had any formal training in forestry, although over two-thirds indicated that they had some knowledge of growing trees. Fifty-two percent of partners had an off-farm job, while among those who were married 23% had spouses with off-farm employment.

Thirty-two percent of partners owned farms of less than 30 ha, and only 12% of

partners owned farms in excess of 100 ha (Table 3). The survey revealed that forestry was the main activity on almost half of all farm partners' farms. On the remainder, sheep and cattle enterprises dominated except in the South-east where the main activity was dairying.

**Table 3.** Size of farms owned by farm partners by region (n = 50)

Farm size (ha)	West (%)	South-east (%)	Midlands (%)	All (%)
<20	14	7	29	16
20<30	27	7	7	16
30<50	23	29	36	28
50<100	27	36	21	28
≥100	9	21	7	12
Average farm size (ha)	48.8	63.8	70.4	59.0

An indication of the level of conventional farming activities post-afforestation is provided in Table 4. Over one third of partners had less than 5 ha of non-forest land with 45% in this category in the West.

**Table 4.** Non-forested areas on farm holdings (n = 50)

Non-forested land (ha)	West (%)	South-east (%)	Midlands (%)	All (%)
<5	45	21	36	36
5>10	9	0	14	8
10>15	18	14	0	12
15>20	0	0	14	4
≥20	27	64	36	40

Those farming relatively small farms afforested a large proportion of their farm area (Table 5). All partners who farmed less than 20 ha afforested more than 50% of their farm area, but only 17% of those farming in excess of 100 ha afforested more than 50% of their farm.

**Table 5.** Proportion of farm area afforested by farm size (n = 50)

Proportion of farm area afforested (%)	Farm size (ha)				
	<20 (%)	20<30 (%)	30<50 (%)	50<100 (%)	≥100 (%)
<25	0	0	7	21	50
25<50	0	25	21	51	33
50<75	62	0	36	7	17
75≤100	38	75	36	21	0



The small areas of farming post-afforestation were reflected in the number of livestock units on the farms. Over two thirds (68%) of all the partners had less than 15 livestock units while only 20% had greater than 50.

#### **Payments under the Scheme**

Most commonly farm partners received annual payments amounting to €6,349 - €12,697 per annum (36% of farm partners). Overall, the average payment level was €8077 while the median payment was €6,929. For many of the partners the payments from the scheme were a major component of their income from farming. Indeed, for almost half of those surveyed (i.e. 46%) these payments comprised all of their farm income, with a further 18% indicating that the payments accounted for over 75% of their farm income. In particular the payments formed a considerable part of the farm income of farm partners with an off-farm job and those who were retired.

#### **DISCUSSION**

The primary objective of this study was to gain a profile of those who have taken part in the Farm Partnership Scheme. The survey revealed that the typical farm partner was male, married and aged 50 years or older. Over half of the partners had an off-farm job. The average size of holding farmed by those surveyed was 59 ha. An examination of the age profile of the national farm population (CSO 1997) indicated that it was similar to the age profile of farm partners. In contrast, the size distribution of farms involved in partnerships differed from the national distribution of farm sizes. For example, 40% of partners' farms were greater than 50 ha while nationally the equivalent percentage is only 20%. As the smallest area that Coillte will consider in the scheme is 20 ha (8 ha where the area is contiguous to an existing Coillte plantation) relatively fewer of those owning small farms would have this area available for afforestation. In addition, part-time farmers have a greater representation in the population of farm partners (i.e. 52%) than in the national farming population, where only 33% have an off-farm job (DAFF 2002). It is likely that the Farm Partnership Scheme is attractive to farmers with off-farm jobs because it gives them the opportunity to utilise their holdings with minimum input of their labour. The land parcel being afforested under the scheme is considerable greater than that normally afforested by farmers. Nationally, the mean size of forest established by private landowners (the vast majority being farmers) during 1993-1997 was 9.5 ha, with over 70% establishing less than 10.0 ha (Forest Service 1998). This survey indicated that much greater areas were being afforested by farmers under this scheme with the average area of forest being 23.7 ha. Given that a potential partner must in most instances have at least 20 ha available for afforestation under the scheme, this finding is not surprising.

In 1992, Coillte introduced the Farm Partnership Scheme in an effort to source land for afforestation. Since its introduction land prices have continued to rise making it increasingly difficult for Coillte to purchase land. Coupled with the decision by the EU in 1996 to stop the payment of premiums to Coillte (and cessation of establishment grants to Coillte in 1999), this has meant that the importance of the scheme in the Coillte afforestation program has increased. Since

2000 all afforestation by Coillte has been undertaken as part of the Farm Partnership Scheme. This scheme therefore provides Coillte with access to land which it otherwise would not have been able to source. This land is also of higher quality than that normally planted by Coillte. Over 91% of the land afforested in the scheme was classed as enclosed, compared with only 45% of land afforested by Coillte outside of partnerships during the same period.

Several surveys investigating the reasons why Irish farmers afforest land, have found that the primary motivation has been to make economic use of low quality agricultural land (Ni Dhubhain *et al.* 1994, Wall and Ni Dhubhain 1998). The economic returns from forestry were cited as the primary reason for planting by 30% of farm partners. The fact that these returns are non-taxable has been a further incentive for afforestation. In addition, almost a quarter of farm partners surveyed indicated that the land on which they planted had limited use for agriculture. These responses coupled with the fact that almost all the land afforested was previously used for rough grazing or temporary pasture would suggest that the reasons why farm partners afforested land were similar to those that motivated the general population of farm forest owners to afforest.

One of the objectives of the study was to determine why farmers opted to become involved in the Farm Partnership Scheme. The most common reason given by the farm partners surveyed was that they lacked the expertise to undertake the work involved in forest establishment and management themselves. There are historical and cultural reasons for this lack of forestry expertise among farmers, but their lack of uptake of farm forestry courses has exacerbated the problem (Wall and Ni Dhubhain 1998). However, farmers can opt to employ a management company if they lack forestry expertise. Indeed, over 80% of farmers who have converted land to forestry have employed management companies to carry out the work and look after the forest during the first few years (Ni Dhubhain and Wall 1999). Thus the most popular reason given by partners for their involvement in the scheme does not really explain their decision. The less popular reasons cited in the survey highlight the attractions the scheme offers farmers compared to those offered by management companies. For example, one third of farmers gave the financial returns under the scheme as their reason for participating. While all farmers who wish to afforest land can apply for an establishment grant and annual premium payments from the Forest Service, those participating in the Farm Partnership Scheme also receive an advance payment based on expected clearfell profits. This is especially important for older farmers. Only 20% of partners cited the long-term security of being involved with a semi-state body as their reason for participating in the scheme. In the Farm Partnership Scheme, the management company (i.e. Coillte) has a stake in the output of the plantation in that they share in the profits from the sale of harvest volumes. This should ensure high quality management. Currently, management companies do not offer any package whereby they share in the profits from sales of harvested timber.

The payments under the Farm Partnership Scheme formed a significant part of the income farm partners received from farming. This was especially true for farm partners who were retired from farming or those who had an off-farm job. This finding indicates that forestry rather than traditional farm enterprises is allowing this group of farm partners to continue to 'farm'. The most common payment level ranged between €6,349 and €12,697. The value of these payments can be judged by

the fact that the average national farm income was only €16,507 per annum in 1997 (DAFF 1998). In addition, unlike agricultural income, these partnership payments are tax-free.

While the uptake of the Farm Partnership Scheme has increased since its introduction, it is now facing a new challenge. Since its launch, the vast majority of partnerships have involved the planting of Sitka spruce. Under the current program the area of any grant-aided plantation project must comprise at least 10% broadleaves. It is anticipated that this percentage will increase. This move towards slower growing species will have consequences for the rotation lengths and consequent economic returns from the Farm Partnership Scheme. Any reduction in economic returns is likely to make the scheme less attractive to farmers.

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